

ABSTRACT OF THE DISCLOSURE

A variable speed wind turbine having a passive grid side rectifier using scalar power control and dependent pitch control is disclosed. The variable speed turbine may include an electrical generator to provide power for a power grid and a power conversion system coupled to the electrical generator. The power conversion system may include at least one passive grid side rectifier. The power conversion system may provide power to the electrical generator using the passive grid side rectifier. The variable speed wind turbine may also use scalar power control to provide more precise control of electrical quantities on the power grid. The variable speed wind turbine may further use dependent pitch control to improve responsiveness of the wind turbine.